A GUIDE ON APPLYING FOR THE APPROVAL OF WATER WORKS

Ontario

Environment
Environnement

Jim Bradley, Minister/ministre

A GUIDE ON APPLYING

FOR THE APPROVAL OF

WATER WORKS

ENVIRONMENTAL APPROVALS SECTION

ENVIRONMENTAL APPROVALS & LAND USE PLANNING BRANCH

MINISTRY OF THE ENVIRONMENT

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NOTE: The printing of this Guide is to facilitate recent demand for the publication and does not reflect recent organizational changes within the Ministry. A revised and updated guide is under preparation. Any questions related to this guide should be addressed to the appropriate Approvals Supervisor.

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A GUIDE ON APPLYING

FOR

THE APPROVAL OF WATER WORKS

PURPOSE OF GUIDE

This guide is intended to assist persons in applying for approval of water works sytems under Section 23 of The Ontario Water Resources Act. The contents of this guide will describe the types of approvals available, how the application form is to be completed, what supporting information is required and the responsibilities of both the applicant and this Ministry regarding approvals.

The guide touches briefly on some design requirements of this Ministry, but in general other publications must be consulted for detailed design information. The Ministry of the Environment has prepared a number of specifications, guidelines and standards relating to water works sytems which are available upon request. This information in conjunction with other manuals of practice prepared by such agencies as A.W.W.A., World Health Organization, Great Lakes - Upper Mississippi River Board of State Sanitary Engineers, etc. may be consulted in regard to accepted engineering design practice for water works system.

SYSTEMS REQUIRING APPROVAL

Ministry of the Environment approval must be obtained before water works can be undertaken or proceeded with or a

by-law is adopted for raising money to finance such works.

This approval requirement is contained in Section 41 of The Ontario Water Resources Act. The approval requirement covers the establishment of new sytems, or the extension of or any change in any existing system.

The following definition applies to water works under the OWR Act.

> "water works" - means any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works, but does not include plumbing or other works to which regulations made under Clause (f) of subsection (1) of Section 62 apply.

Approval under the OWR Act is not required for the following systems:

(a) a water works to be used only for supplying water, for agricultural, commercial, or industrial purposes, that is not required under any Act or regulation to be fit for human consumption;

(b) a water works not capable of supplying water at a rate greater than 45.5 meters per day (10,000 gallons per day) (i.e. not capable of supply rates in excess of 0.5 liter per second (6.9 gpm));

(c) privately-owned water works to be used to supply water only for five or fewer private residences.

All water works with the exception of the above and those covered by the Plumbing Code, therefore, required approval by the Ministry of the Environment.

WHEN APPROVAL IS REQUIRED

Water systems requiring approval under the OWR Act must be approved prior to construction or prior to adopting by-laws for raising money to finance such works. Approval will be given through the issuance of a certificate of approval upon satisfactory compliance by the applicant with the policies and requirements of the Ministry of the Environment.

Every municipality that, or person who proceeds with works or the passage of by-laws financing such works without approval of the Ministry is guilty of an offence and is subject to the penalties outlined in Section 23 of The Ontario Water Resources Act.

TYPES OF APPROVALS

Before assembling the necessary information and undertaking the extensive engineering studies necessary for a formal application for approval, the applicant or his

agents may wish to meet with Ministry staff to discuss the concepts of the proposal and obtain agreement in principle. With minor works, such as the limited extension of existing water distribution systems this prior contact with Ministry staff may not be necessary as long as the water treatment and supply facilities have adequate reserve capacity and the extension will not result in overloading of the sewage treatment facilities. With major works, however, discussion with Ministry staff and the obtainment of agreement in principle is recommended prior to finalizing designs and making application for approval.

To obtain agreement in principle with a proposal, discussions should first be held with designated staff of the Ministry's Regional Operations Division. These staff members are located throughout the Province in Regional and District offices. A list of these office locations is included in Appendix A. If agreement in principle with specific design features or treatment methods is desired by the applicant, discussions should also be held with staff of the Water and Wastewater Approvals Unit, Environmental Approvals Branch, 135 St. Clair Avenue West, Toronto, Ontario. On Ministry financed projects, these discussions should be carried out with staff of Design and Equipment Section of the Project Co-ordination Branch, 135 St. Clair Avenue West, Toronto.

When the applicant is ready to make a formal submission for approval, three types of approvals can be applied for - preliminary, final or experimental approval.

Preliminary Approval is the Ministry's agreement with the applicant's concept and basis of design, and represents a commitment by the Ministry to give final approval subject to the receipt of satisfactory final plans and specifications. Preliminary approval is not authorization to begin construction, but allows the applicant to arrange for financing of the works, and to obtain the Ministry's approval of the preliminary design prior to undertaking more extensive engineering work. Preliminary certificates of approval may be requested by the OMB in its consideration of fund expenditures.

It is not a requirement of this Ministry that application be made for preliminary approval of water works prior to applying for final approval. The applicant may proceed toward a submission for final approval if he so desires.

The issuance of a preliminary certificate of approval does not fulfill all requirements, and application for final approval must be made when plans and specifications are completed.

Final Approval is granted when an application has met all the requirements of the Ministry. The final approval Certificate implies Ministry approval to commence construction. It should be noted, that other approvals, permits, clearances, etc. may be required from other jurisdictions.

Where in the opinion of the Director, it is in the public interest to do so, the Director may refuse to grant his approval or grant his approval on such terms and conditions as he considers necessary.

Experimental Approval is intended to encourage the development of new processes, equipment and materials where reliable operating data from full-scale installations are not available. Experimental approval is given in the form of terms and conditions to a Certificate of final approval. To be eligible for experimental approval, the applicant must show that failure of the system will not result in health hazard or pollution, that the system can be modified to or replaced with a conventional system, and that the necessary capital resources are available to make this modification or replacement.

The risk incurred with experimentation must rest with the proponent of the system. In granting such experimental approval, the Ministry reserves the right to limit the number of approvals for the same system and may require the owner to submit reports on the operation of the system during the experimental period.

AIR EMISSIONS

For any source of air contaminants or if standby power internal combustion engines are to be provided for any water

works the requirement of Section 8 of The Environmental Protection Act must be satisfied. This involves a separate application for "Air" approval.

Ontario Regulation 15, under The Environmental Protection Act, specifies the maximum allowable concentration of air contaminants at the point of impingement. These regulations also specify the dispersion calculations to determine the maximum concentration of a particular contaminant under the least favourable atmospheric conditions taking into account buildings height, configuration, etc.

If the isolation distance from the source of air contamination to the nearest residential dwelling, apartment building, restaurant, etc. (considered as the point of impingement) is not sufficient to dissipate the air contaminants to within the regulated levels, a higher exhaust stack or emission control equipment will be required.

METRICATION

As of January 1, 1978 all designs submitted to the Ministry including plans, specifications, reports, designs calculations, etc. should be prepared in the International System of Units (SI). The present approach of the Ministry to metrification is presented in the MOE "Metrification Guidelines for Consulting Engineers".

INFORMATION REQUIRED FOR PRELIMINARY APPROVAL

If the applicant wishes to apply for preliminary approval, a preliminary report should be prepared. The applicant may request formal preliminary approval by submitting the report along with a duly completed application form.

Without limiting the scope of the preliminary report, it should, where pertinent, present the following information:

1. Description of the existing water supply, treatment, storage and distribution facilities and sewage facilities.

2. Extent, nature and anticipated population of area to be serviced, facilities proposed to be constructed, and provisions for extending the system to include additional areas.

3. Brief discussion of alternatives (water supply, treatment, storage, site locations, etc.) which have been assessed and the reasons for selecting the ones recommended, including financial considerations.

4. Itemization and discussion of present and future domestic water consumption figures, commercial and industrial usages, and fire flows used in sizing various components of the water works system. Reference should be made to the MOE Guidelines for the Design of Water Distribution Systems.

5. Discussion of raw water quality and quantity available from the proposed source of supply.

Surface water quality should be substantiated by data from chemical and bacteriological sampling surveys extending over sufficiently long periods of time to establish the expected variations in water quality parameters. Groundwater quality can generally be substantiated by chemical and bacteriological sampling during well pumpage tests. Reference should be made to the Ministry publications "Guidelines and Criteria for Water Quality Management in Ontario" and "Drinking Water Objectives". These publications outline the Ministry's requirements respecting acceptable raw and treated water quality.

Results of studies to determine the quantity of water available should be documented. In the case of minor supply requirements on major watercourses

such studies may not be required. On the other hand, perennial well yields must be clearly established.

It is desirable with all groundwater supply systems that a hydrogeologist's report be provided stating the perennial yield, maximum short-term yields (i.e. over 12 hours, 24 hours, 1 week, etc.) and recommended pump sizing based on a minimum of a 24-hour pumping test. This report should also deal with possible interference with other existing wells in the area.

In instances of small capacity wells in areas where sufficient well drilling has taken place to substantiate the capacity of the aquifers, a 24-hour pumping test interpreted by a well-driller may be sufficient to estimate the well capacity. However, if the 24-hour pumpage test is in the Ministry's opinion inconclusive, a retest and a hydrologist's report may be requested.

6. Discussion of proposed treatment facilities establishing the adequacy of these processes for the treatment of the specific raw water under consideration. Included in this discussion should be a summary of the design parameters to be used with the unit processes, such as, basin

capacities, detention times, surface settling rates, filtration rates, backwash rates, etc. It should be noted that the minimum treatment requirement for surface water is filtration and disinfection with continuous monitoring of the finished water turbidity and chlorine residual. Generally, however, the Ministry's drinking water objectives cannot be consistently met without the provision of pre-treatment prior to filtration. For clarification of this requirement, the staff of the Ministry Regional Office should be contacted.

Wells with raw water meeting the Ministry's drinking water objectives do not require treatment. However, it is considered desirable to provide chlorination for all groundwater supplies to ensure that nuisance organisms which exist in virtually all waters do not get the opportunity to develop a foothold in the distribution system and thereby create objectionable conditions.

In assessing the suitability of and the treatment requirement for a raw water, it should be noted that the provision of coagulation, flocculation, sedimentation, filtration and disinfection has little effect on certain constituents such as

arsenic, barium, boron, cadmium, chloride, chromium, copper, fluoride, lead, nitrate, etc. These difficult to treat constituents are identified in the "Guidelines and Criteria for Water Quality Management in Ontario". Since these constituents require very expensive treatment facilities, their presence in concentrations above the allowable limits may constitute grounds for rejection of the supply.

7. Discussion of the various waste streams from the treatment process, their volume, proposed treatment and points of discharge. All waste streams are to be treated to the same effluent quality as would be required for sewage discharges to the same receiving water body. For clarification of this requirement, the staff of the Ministry Regional Office should be contacted.

8. Description of proposed pumping facilities including low-lift, high-lift and booster pumping stations. The number, capacity and head of duty and standby pumps should be itemized. The ability of the system to supply water during power failures through either standby power facilities and/or elevated storage systems should be discussed.

9. Locations of proposed metering equipment.

10. Assessment of requirements with respect to storage and discussion of how these requirements will be satisfied with the proposed facilities. Reference should be made to the MOE Guidelines for the Design of Water Storage Facilities.

11. Brief discussion of the various sites for important water works structures from standpoint of proximity to residences, industries and other establishments; presence of any potential sources of contamination, or other factors, which may influence the quality of the water supply or interfere with the effective operation of the water works system; possibility and likely effects of flooding; advantages of recommended sites over other sites considered.

12. Discussion of the design criteria used for proposed watermains including design flows, "C" factors, alternative materials, minimum sizes, minimum and maximum distribution pressures, minimum working pressure of pipe, minimum depth of cover, minimum separation distance provided from sewers and other utilities, etc. Reference should be made to the MOE Guidelines for the Design of Water Distribution Systems.

13. Discussion of the planning for any future extensions and/or improvements to the system.

14. Financing of the proposed works including a breakdown of the estimated capital costs (this can be shown on the application form); estimation of the annual operating costs; proposed method of financing.

15. Plan(s) showing the following information, where pertinent:

    (a) name of municipality
    (b) suitable title
    (c) scale
    (d) north point
    (e) datum used
    (f) municipal boundaries
    (g) general layout and sizes of existing and proposed watermains and location of existing and proposed major works, sources of water supply, intakes, possible points of contamination (sewage treatment plant discharges, sewer overflows, etc.)
    (h) existing and proposed develpment in vicinity of major works
    (i) proposed general layout of major works (line diagrams and/or schematics may suffice).

INFORMATION REQUIRED FOR FINAL APPROVAL

In order to obtain final approval, a duly completed application form, final plans and specifications along with adequate supporting information are required. If the proposal has not received preliminary approval, the pertinent information required in the section "Information Required for Preliminary Approval" will be necessary along with the information requested in this section. If preliminary approval has previously been obtained, the preliminary approval number should be mentioned in the letter of submittal. A MOE Permit to Take Water must be obtained by the applicant before final approval is granted for any ground or surface water supply, or combination thereof.

A submission for final approval which has previously received preliminary approval should contain the following information where pertinent:

Plans

General

All plans for water works should bear a suitable title showing the name of the municipality, name of water area or facility being serviced; and should show the scale, the north point, date, and the name of the engineer and imprint of his registration seal.

The plans should be clear and legible. They should be drawn to a scale which will permit all necessary information to be plainly shown. The size of the plans should be according to the ISO "A" series, as described in CGSB 9-GP-100. The datum used should be indicated. The location and logs of any soil test borings should be shown on the plans.

Detail plans should consist of plan views, elevations, sections and supplementary views which, together with the specifications and general layouts, provide the working information for the contract and construction of the works. Dimensions and relative elevations of structures, the location and outline form of equipment, location and size of piping, water levels and ground elevations should be shown.

Plans of Watermains

General Plan

A comprehensive plan of the existing and proposed water works should be submitted for projects involving new water systems or substantial additions to existing systems. This plan should show the following:

(a) Geographical features including existing and proposed streets, watercourses, contour lines at suitable intervals, municipal boundaries, etc.

(b) Location and size of existing and proposed watermains.

(c) Location and nature of existing water works structures and appurtenances affecting the proposed improvements.

(d) Location and nature of proposed water works structures.

Detail Plans

The proposed and existing watermains (in the vicinity of the proposed watermains) should be shown in plan and profile. Profiles should have a horizontal scale* of not more than 1:1000 and a vertical scale* of not more than 1:100. The plan view should be drawn to a corresponding horizontal scale. Plans and profiles should show:

(a) Location of streets and watermains.

(b) Line of ground surface, size, material and class of pipe, length between hydrants, valves and/or other appurtenances.

*Note: For tolerated continuing use of inch-feet system refer to Ontario Government Publication "Map and Plan Scales, Ratios and Paper Size".

sanitary design and hydraulic calculations.

(i) Summary of capacities provided in the various components of the proposed system.

(j) Raw water quality and proposed treatment methods.

INFORMATION REQUIRED FOR EXPERIMENTAL APPROVAL

Experimental approval is given in the form of terms and conditions to a certificate of final approval. The information required for final approval must therefore be submitted and in addition the following information will be necessary.

1. All existing data pertaining to the proposed process, equipment or material.

2. The results of any testing programs which have been undertaken by independent testing agencies, research foundations, universities, etc.

3. A listing of any known full-scale applications of the proposal giving a description of the type of application and the name and address of the person who could be contacted in regard to the application.

4. A discussion of the effects which failure of the proposal would cause and what precautions would be

(b) Size of the property to be used for the water works structure.

(c) Topography of the property and adjoining lands including the elevation of the highest known flood levels.

(d) Location of all sources of potential pollution which could affect the water quality.

(e) Layout and size of the existing, proposed and future plant structures on the property and showing the distances from the structures on adjoining properties.

General Layout and Detail Plans

For each proposed major water works facility, plans showing the following should be submitted:

(a) Schematic diagrams showing details of well construction including elevations of geological formations, water levels, proposed pump levels, etc.

(b) Schematic flow diagrams showing all process and waste flow streams in treatment plants.

(c) Hydraulic profiles through intake works, treatment plants, pumping stations, etc. The profile should be of accurate and adequate vertical scale to clearly show the top of the tanks, weirs and other features which directly affect the hydraulic gradient. The hydraulic gradient should be shown for minimum and maximum flow rates. For intake works maximum, normal and minimum water levels of the source and their effects on low-lift pump should be shown.

(d) Piping in sufficient detail to show flow through treatment plants and pumping stations including by-pass and waste lines.

(e) Test borings and groundwater elevations within site limits.

(f) Location of all chemical feeding equipment and points of chemical addition.

(g) All appurtenances, specific structures, equipment, water treatment plant, waste disposal units and points of discharge, having any relationship to the plans for water works major facilities.

(h) Location of sanitary or other facilities, such as lavatories, showers, toilets, and lockers.

(i) Location, dimensions and elevations of all existing and proposed plant facilities.

(j) Type, size, pertinent features, and manufacturer's rated capacity of all pumps, chemical feeders, blowers, motors and other mechanical devices.

(k) Adequate description of any features not otherwise covered by the specifications.

Specifications

Complete technical specifications are required for the construction of water works projects. In the case of minor works such as watermain extensions, these specifications can generally be noted on the drawings themselves. With more extensive works, separate specification documents will generally be necessary.

The specifications should include all construction information not shown on the drawings which will be necessary to inform the builder in detail of the design requirements as to the quality of materials and workmanship and fabrication of the project and the type, size, strength, operating characteristics and rating of equipment; allowable leakage and pressure testing of watermains; disinfection procedures; the complete requirements for all mechanical and electrical equipment, including machinery, valves, piping,

and jointing of pipe; electrical apparatus, wiring, and meters; laboratory fixtures and equipment; operating tools; construction materials; filter materials such as stone, sand, gravel and anthracite; miscellaneous appurtenances; chemicals to be used; instructions for testing materials and equipment as necessary to meet design standards; operating tests for the completed works and component units; and programs for keeping existing works in operation during construction of new works.

Design Brief

A design brief should be submitted along with the plans and specificatins summarizing the design criteria and presenting the design calculations used in sizing the various water works facilities.

In the case of minor watermain extensions where the minimum sizing dictates, that is 150 mm (6-inch) diameter, such calculations are generally not required. If the designer proposes using less than 150 mm (6-inch) diameter watermain for watermains not required to carry fire flow or the supply capability of the existing system is marginal or the proposed extension is quite extensive, the design criteria and design calculations should be forwarded.

In the case of intake works, low-lift and high-lift pumping stations, treatment works, well supplies and storage

facilities, a design brief will be required.

A design brief should contain, but not necessarily be limited to, the following, where pertinent:

(a) Population served (immediate and future), and per hectare (acre) population densities.

(b) Area served (immediate and future) in hectares (acres).

(c) Per capita water consumption (average, maximum day and peak rate), industrial and commercial usages.

(d) Fire flow requirements.

(e) Design flows to be used for sizing intakes, pumps, treatment, storage and distribution facilities.

(f) Reserve capacity available in existing systems or proposed capacity of new sytem to meet anticipated demands.

(g) Summary of design criteria used for intakes, pumping stations, treatment systems, storage facilities and distribution systems.

(h) Design calculations used in sizing various portions of the water works system, including

sanitary design and hydraulic calculations.

(i) Summary of capacities provided in the various components of the proposed system.

(j) Raw water quality and proposed treatment methods.

INFORMATION REQUIRED FOR EXPERIMENTAL APPROVAL

Experimental approval is given in the form of terms and conditions to a certificate of final approval. The information required for final approval must therefore be submitted and in addition the following information will be necessary.

1. All existing data pertaining to the proposed process, equipment or material.

2. The results of any testing programs which have been undertaken by independent testing agencies, research foundations, universities, etc.

3. A listing of any known full-scale applications of the proposal giving a description of the type of application and the name and address of the person who could be contacted in regard to the application.

4. A discussion of the effects which failure of the proposal would cause and what precautions would be

taken to preclude health hazard or pollution as a result of the failure.

5. A discussion of how the proposal could be modified or replaced with a conventional system if failure ocurred and how such a modification or replacemnt would be paid for.

6. A description of the monitoring, testing and reporting program which the applicant would undertake during the experimental period.

7. The duration of the proposed experiments.

FUNCTIONS OF THE MINISTRY IN APPRAISING APPLICATIONS AND ISSUING APPROVALS

Applications are reviewed by the Environmental Approvals Branch from the public health and functional point of view based upon the Ministry's water quality objectives and accepted principles of sanitary engineering. Features which are deemed to be inconsistent with the design period of the works, or its satisfactory and safe operation, may be brought to the attention of the applicant. In general, the structural, mechanical and electrical details are of concern only to the extent that they affect the functioning of the works.

Applications are not reviewed with respect to other Provincial or Federal by-laws, codes, regulations or statutes which may pertain to water works.

Where, in the opinion of the Director, it is in the public interest to do so, the Director may refuse to grant his approval or grant his approval on such terms and conditions as he deems necessary. In such cases, the Applicant has the right to appeal to the Environmental Appeal Board and the Director within 15 days after receipt of the conditional certificate of approval or notice of refusal.

RESPONSIBILITY OF THE OWNER IN APPLYING FOR APPROVAL

Before making application to the Ministry, the owner or his agent should familiarize himself with those sections of The Ontario Water Resources Act pertaining to the approval and operation of water works.

In signing the application form, the applicant acknowledges awareness of other statutes related to water works; agrees that no changes in, or deviations from the approved plans or specifications will be made except with the consent and approval of the Director, Environmental Approvals Branch; and agrees, if requested, to submit as built plans and cost figures to the Director upon completion of the project.

The approval of Ministry does not relieve the owner or his agent from his responsibility to submit the necessary material to other authorities for their approval. Also, as indicated in the previous section, the appraisal and approval of plans and specifications by the Ministry does not release the owner of any liability for personal or property damage resulting from the proposed water works. The applicant is, therefore, strongly advised, if he himself is not qualified, to obtain the services of someone who is qualified in the design of water works systems and who is familiar with all the necessary approval requirements.

As can be seen from the previous sections, the information required with an application for approval by this Ministry can be quite extensive. The more complete and comprehensive are the plans, specifications and design information, the more rapidly they can be assessed and approved. This will save the applicant as well as this Ministry unnecessary delays.

PROCEDURES TO BE FOLLOWED BY THE APPLICANT IN REQUESTING APPROVAL

Application Form

All requests for approval of water works are to be submitted along with the Ministry of the Environment application form MOE 0734 (11/83)(appended). In addition, for any facilities such as pumping stations with standby power

facilities such as pumping stations with standby power equipment which results in atmospheric emissions, the applicant should complete MOE Form 1131 Application for a Certificate of Approval (AIR). These application forms can be obtained from the Municipal and Private Approvals Section, Environmental Approvals Branch, Ministry of the Environment, 135 St. Clair Avenue West, Toronto, Ontario, M4V 1P5. If more convenient, the forms may also be obtained from the Regional and District offices listed in Appendix A.

The application form should be filled in where pertinent giving all the necessary background information. The completed form gives the following information:

(a) type of approval being requested;
(b) description of works to be constructed;
(c) location of works;
(d) signatures of applicant, engineer, municipal authority and operating authority;
(e) cost summary;
(f) financing method;
(g) scheduling of construction;
(h) Ministry of Housing File number (T-number) and registered plan number;
(i) names and addresses of those who are to receive approval certificates;
(j) detailed location description of proposed watermains and sewers;
(k) type and class of watermain material;
(l) proposed municipal by-law description.

INSTRUCTIONS FOR COMPLETING APPLICATION FORM (WATER WORKS)

The applicant must be the owner of the proposed works or a person authorized by him. The applicant should see that all pertinent information requested on the application is provided, including the location description, cost information and the co-signatures. The shaded areas of the application form are for office use only.

PAGE TWO

The information and signatures required on Page 2 constitute the formal request for approval of the works to be constructed, extended, altered or replaced under The Ontario Water Resources Act, Section 23.

The name and address of the owner on whose behalf the application is made should be clearly shown. The applicant is expected to indicate the type of approval being requested and give a general description of the type, capacity and location of the proposed works.

The co-signatures required along with the applicant's include the signature and seal of the engineer who has prepared the engineering documents. If the applicant is not the municipality in which the works are to be constructed, the signature of the municipal clerk is required. This is to establish the municipality's general approval of the

proposed works and does not necessarily imply technical approval and/or responsibility for the works. If the applicant will not be the operating authority upon completion of the works, the signature of an authorized official of the operating authority is required.

PAGE THREE

Page 3 of the application form provides for a breakdown of the total estimated cost into a number of categories. Each section should be completed where applicable and where the cost can be reasonably estimated. Final cost figures, when requested, should be presented in the same manner upon completion of the project. The method of financing and the schedule for commencing and constructing the works are to be provided.

If the proposal concerns a subdivision for which there is a Ministry of Housing File number (T-number) or Registered Plan number, this number should be indicated on the application form.

PAGE FOUR

The watermain location description given on the last page of the application form must be completed accurately since this description is used in the preparation of the approval certificate.

If the applicant is a municipal corporation financing the work by debentures under The Municipal Act, the bottom part of the page should be used to give the proposed by-law description, if available. This will enable staff of the Ministry to advise the municipality where apparent discrepancies in the two descriptions may result in enquiries from the Ontario Municipal Board when the project is before the Board.

The following guidelines should be used by the applicant when preparing watermain location descriptions:

(a) The works to be approved should be so described that they can be located in the field without reference to the engineering drawings.

(b) The description used should give the actual locations of watermains, not the area to be serviced. If the municipal by-law description differs greatly from the watermain location description, the space provided at the bottom of page 4 of the application form should be used to give the by-law description.

(c) The limits of watermain should be related with respect to distance from the nearest intersecting streets rather than being referenced with respect to lot numbers, street numbers, etc. Unless

otherwise stated, it will be assumed that distances given, such as "approximately 150 meters east of Jane Street", refer to distances from the centreline of Jane Street.

Hydro or railway right-of-ways may also be used to reference the terminal points of watermains if they have been shown on the final plans.

(d) Each specific street, easement, or right-of-way traversed by the watermain must be shown separately on the location description. If street names have not been established at the time of submission, the applicant is required to provide his own suitable designation for each street on both the plans and location description portion of the application form.

(e) Some variation is expected when construction of the works is undertaken, but the variation should not exceed 10 meters. With greater variations, it is assumed that the works are not being constructed as shown on the plans submitted for approval, and a revised submission should be made.

(f) In the event that two watermains are to be constructed on the same street, they should be described separately through the use of terms such as "on the north side" and "on the south side".

(g) The expressions "cul-de-sac" or "end of court" may be used to describe the terminal point of watermains built on streets that end in a turning circle around which lots are to be developed.

(h) General descriptions of watermains may be used where it is inconvenient to use detailed descriptions. Examples of this would include services relocated due to highway construction and watercourse improvements in urban areas. Similarly, water distribution systems on private property such as systems servicing tent and trailer camps, golf courses, etc., where the watermains do not follow roadways, may be given general descriptions.

APPENDIX A

D. MINISTRY OF THE ENVIRONMENT (Regional Directors)

Regional Director
Ministry of the Environment
Central Region
4th fl., 7 Overlea Blvd.
Toronto, Ontario
M4H 1A8 (416) 424-3000

Regional Director
Ministry of the Environment
Sudbury Regional Office
Northeast Region
11th floor, 199 Larch St.
Sudbury, Ontario
P3E 5P9 (705) 675-4501

Regional Director
Ministry of the Environment
Thunder Bay Regional Office
Northwest Region
Box 5000, 3rd Fl.
435 James St. S.
Thunder Bay, Ontario (807) 475-1205

Regional Director
Ministry of the Environment
Kingston Regional Office
Southeast Region
Box 820, 133 Dalton Ave.
Kingston, Ontario
K7L 4X6 (613) 549-4000

Regional Director
Ministry of the Environment
London Regional Office
Southwest Region
985 Adelaide St. S.
London, Ontario
N6E 1V3 (519) 661-2200

Regional Director
Ministry of the Environment
Hamilton Regional Office
West Central Region
Box 2112, 12th fl.
119 King St. West
Hamilton, Ontl
L8N 3Z9 (416) 521-7640

D. MINISTRY OF THE ENVIRONMENT (Manager, Technical Support)

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D. MINISTRY OF THE ENVIRONMENT
(District Offices and Sub-Offices)

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Toronto District Office
4th fl., 7 Overlea Blvd.
Toronto, Ontario
M4H 1A8 (416) 424-3000

District Officer
Ministry of the Environment
Barrie District Office
12 Fairview Rd.
Barrie, Ontario
L4N 4P3 (705) 726-1730

District Officer
Ministry of the Environment
Halton-Peel District Office
1226 White Oaks Blvd.
Oakville, Ontario
L6H 2B9 (416) 844-5747

District Officer
Ministry of the Environment
Muskoka-Haliburton District Office
Gravenhurst Plaza General Delivery
Gravenhurst, Ontario
POC 1GO (705) 687-3408

District Officer
Ministry of the Environment
Peterborough District Office
139 George St. N.
Peterborough, Ontario
K9J 3G6 (705) 743-2972

District Officer
Ministry of the Environment
York-Durham District Office
4th fl., 7 Overlea Blvd.
Toronto, Ontario
M4H 1A8 (416) 424-3000

District Officer
Ministry of the Environment
North Bay District Office
Northgate Plaze, 1500 Fisher St.
North Bay, Ontario
P1B 2H3 (705) 476-1001

District Officer
Ministry of the Environment
Parry Sound Sub-Office
74 Church Street
Parry Sound, Ontario
P2A 1Z1 (705) 746-2139

District Officer
Ministry of the Environment
Sudbury District Office
11th, 199 Larch St.
Sudbury, Ontario
P3E 5P9 (705) 675-4501

District Officer
Ministry of the Environment
Timmins District Office
83 Algonquin Blvd. W.
Timmins, Ontario
P4N 2R4 (705) 268-3222

District Officer
Ministry of the Environment
Kenora District Office
Box 5150, 808 Robertson St.
Kenora, Ontario
P9N 1X9 (807) 468-5578

District Officer
Ministry of the Environment
Thunder Bay District Office
Box 5000, 3rd Fl.
435 James St. S.
Thunder Bay, Ontario (807) 475-1205

District Officer
Ministry of the Environment
Belleville Sub-Office
15 Victoria Avenue
Belleville, Ontario
K8N 1Z5 (613) 962-9208

District Officer
Ministry of the Environment
Cornwall District Office
2th fl., 4 Montreal Rd.
Cornwall, Ontario
K6H 1B1 (613) 933-7402

District Officer
Ministry of the Environment
Kingston District Office
Box 820, 133 Dalton Ave.
Kingston, Ontario
K7L 4X6 (613) 549-4000

District Officer
Ministry of the Environment
Ottawa District Office
2378 Holly Lane
Ottawa, Ontario
K1V 7P1 (613) 521-3450

District Officer
Ministry of the Environment
Pembroke Sub-Office
1000 MacKay St.
Pembroke, Ontario
K8B 1A3 (613) 732-3643

District Officer, Abatement South
Ministry of the Environment
London Regional Office
985 Adelaide St. S.
London, Ontario
N6E 1V3 (519) 661-2200

District Officer, Abatement South
Ministry of the Environment
London Regional Office
985 Adelaide St. S.
London, Ontario
N6E 1V3 (519) 661-2200

District Officer
Ministry of the Environment
Chatham Sub-Office
c/o Min. Agriculture & Food
P.O. Box 726, 435 Grand Ave. W.
Chatham, Ontario
N7M 5L1

District Officer
Ministry of the Environment
Clinton Sub-Office
c/o Min. Agriculture & Food
P.O. Box 688
Clinton, Ontario
NOM 1LO (519) 482-3428

District Officer
Ministry of the Environment
Ownen Sound District Office
1180-20th
Owen Sound Ontario
N4K 6H6 (519) 371-2901

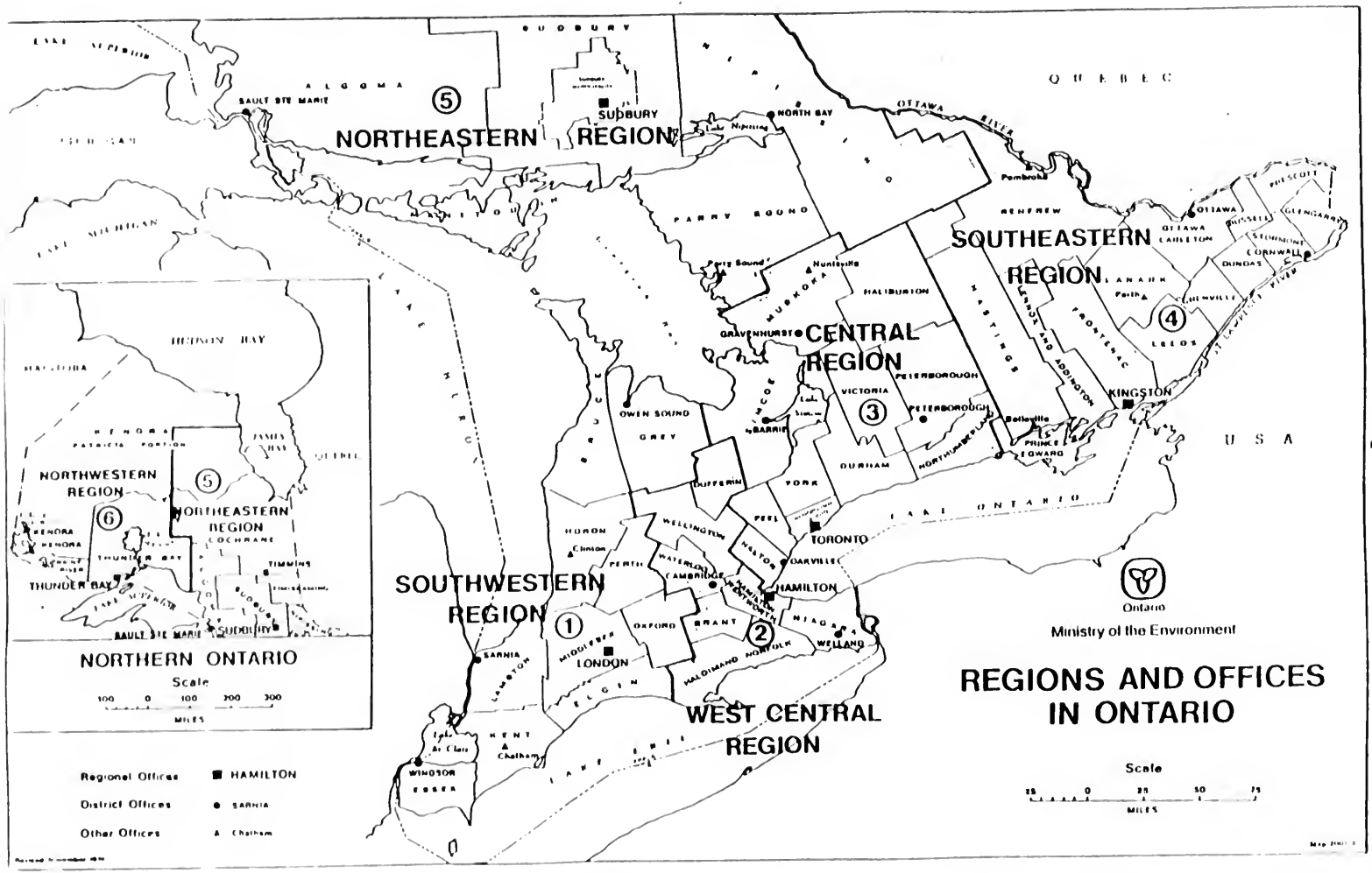
District Officer
Ministry of the Environment
Sarnia District Office
Suite 109, 265 N Front St.
Sarnia, Ontario
N7T 7X1 (519) 336-4030

District Officer
Ministry of the Environment
Windsor District Office
6th fl., 250 Windsor Ave.
Windsor, Ontario
N9A 6V9 (519) 254-5129

District Officer
Ministry of the Environment
Cambridge District Office
Box 219, 400 Clyde Road
Cambridge, Ontario
N1R 5T8 (416) 653-1511

District Officer
Ministry of the Environment
Hamilton District Office
Box 2112, 9th fl., 119 King St. W.
Hamilton, Ontario
L8N 3Z9 (416) 521-7640

District Officer
Ministry of the Environment
Welland District Office
637-641 Niagara St. North
Welland, Ontario
L3C 1L9 (416) 384-9896


NORTHEASTERN REGION
SUDBURY
SAULT STE MARIE
NORTH BAY
SOUTHEASTERN REGION
CENTRAL REGION
SOUTHWESTERN REGION
WEST CENTRAL REGION
TORONTO
HAMILTON
LONDON
KINGSTON
OTTAWA
PETERBOROUGH
BARRIE
OWEN SOUND
SARNIA
WINDSOR
THUNDER BAY
TIMMINS
KENORA
NORTHWESTERN REGION
NORTHEASTERN REGION
NORTHERN ONTARIO
Scale
MILES
Regional Offices
District Offices
Other Offices
HAMILTON
SARNIA
Chatham
QUEBEC
U S A
LAKE ONTARIO
LAKE ERIE
OTTAWA RIVER
Ontario
Ministry of the Environment
REGIONS AND OFFICES IN ONTARIO
Scale
MILES

Ontario

Ministry of the Environment

Ministère de l'Environnement

Application for the Approval of Water Works

Demande d'autorisation de construction d'ouvrages d'adduction et de purification de l'eau

Ministry Use Only
Réservé au ministère
Application Number
Numéro de demande

Municipality
Municipalité

All information should be supplied in duplicate. One copy should be mailed to:

Ministry of the Environment
Director, Environmental Approvals and Project Engineering Branch
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5

and the second copy should be mailed to the local district office of the Ministry.

Présenter tous les documents en double exemplaire. Poster une copie au:

Ministère de l'Environnement
Directeur des approbations environnementales et des services d'ingénierie
135 ouest, avenue St. Clair
Toronto (Ontario)
M4V 1P5

et la seconde copie au bureau local de district du ministère.

Important

The installation of water works shall not be undertaken without the approval of the Director, Environmental Approvals and Project Engineering Branch, of the Ministry of the Environment. Such approval will be made through the issuance of a certificate upon satisfactory compliance by the applicant with the policies and requirements of the Ministry.
This form must be accompanied by the information requested in **A Guide on Applying for the Approval of Water Works.**

Important

Aucun ouvrage d'adduction et de purification de l'eau ne peut commencer à être construit sans l'autorisation du directeur des approbations environnementales et des services d'ingénierie du ministère de l'Environnement. Le directeur donne son autorisation en délivrant un certificat après s'être assuré que le demandeur s'est conformé aux politiques et exigences du ministère.
La présente formule doit être accompagnée des renseignements demandés dans le ***Guide pour les demandes d'autorisation de construction d'ouvrages d'adduction et de purification de l'eau.***

Description of Works
Description des ouvrages
Application is hereby made to the Director for
Le demandeur adresse au directeur par
la présente une demande d'autorisation

Approval to Construct (Describe water distribution systems, pumping stations and miscellaneous facilities.)
de construire (décrire les réseaux de distribution, les postes de pompage et installations diverses).

And Water Treatment and Storage Facilities (Describe type and capacity of major works.)
ainsi que l'usine de purification de l'eau et les réservoirs suivants (décrire le type et la capacité des principeux ouvrages).

Location of Proposed Water Works
Emplacement des ouvrages
Lot, Concession, Municipality & County, District or Region
Lot, concession, municipalité et comté, district ou région

Source of Water Supply
Source d'alimentation en eau

This application is made under the provisions of Section 23, Ontario Water Resources Act, R.S.O. 1980, and such other statutes as relate to water works.

The applicant agrees that no changes in or deviations from the approved plans and specifications will be made except with the consent and approval of the Director, and agrees, if requested, to submit as-built drawings and cost figures to the Director upon completion of the project.

La présente demande est faite aux termes des dispositions de l'article 23 de la Loi sur les ressources en eau de l'Ontario, L.R.O. de 1980, et des autres lois qui se rapportent aux ouvrages d'adduction et de purification de l'eau.

Le demander s'engage à n'apporter aucune modification aux plans et cahier des charges approuvés, sauf s'il obtient le consentement et l'autorisation du directeur, et s'engage, sur demande, à remettre les plans des ouvrages tels qu'ils ont été construits ainsi que la ventilation détaillée du coût de construction au directeur à la fin des travaux.

Signatures Required
Signatures requises

Applicant *Demandeur* Signature *Signature*	Name (Print or Type) *Nom (en lettres moulées)*	Date *Date*
Mailing Address *Adresse*		Telephone *N° de téléphone*

Municipality (If not applicant) *Municipalité (À remplir si le demandeur n'est pas la municipalité.)* Signature *Signature*	Name & Title of Municipal Authority *Nom et titre du responsable municipal*	Date *Date*
Mailing Address *Adresse*		Telephone *N° de téléphone*

Engineer *Ingénieur* Engr. Documents Certified by (signature) *Préparation des documents d'ingénierie certifiés par (signature de l'ingénieur autorisé)*	Name of Engineer or Firm *Nom de l'ingénieur ou de la firme d'ingénierie*	Date *Date*
Mailing Address *Adresse*		Telephone *N° de téléphone*

Operating Authority (If not applicant) *Exploitant (À remplir si l'exploitant n'est pas le demandeur.)* Signature *Signature*	Name of Operating Authority *Nom de l'exploitant*	Date *Date*
Mailing Address *Adresse*		Telephone *N° de téléphone*

Cost Summary
Sommaire des couts

Watermains and Appurtenances *Conduites principales et accessoires*	$ _____
Service Connections *Branchements d'eau*	$ _____
Auxilliary Pumping Stations and/or Storage Systems *Postes de pompage auxiliaires et/ou réservoirs*	$ _____
Water Supply and/or Punfication Works *Alimentation en eau et/ou usines de purification*	$ _____
Engineering and Contingencies *Ingénierie et imprévus*	$ _____
Land Charges *Frais fonciers*	$ _____
Total ***Total***	$

Financing
Financement
Payment by (cash, debentures, loans, etc.)
Paiement (comptant, débentures, emprunts, etc.)

Source of Financing (municipal, private, government)
Source de financement (municipal, privé, gouvernemental)

Scheduling
Calendrier
Construction Start Date
Date de début des travaux

Construction Period (years, months)
Durée des travaux (années, mois)

File Number of Ministry of Municipal Affairs and Housing
Numero de dossier du ministere des Affaires municipales et du Logement

or Registered Plan Number (if applicable)
ou numero de plan enregistre *(s'il y a lieu)*

The certificate of approval will be issued to the applicant. Copies will be sent to the clerks of any affected municipalities which are not applicants. List names and addresses below for any other recipients.

Le certificat d'autorisation sera delivre au demandeur et une copie du certificat envoyee aux secretaires de toutes les municipalites interessees qui n'ont pas signe la demande. Indiquer ci-dessous les noms et adresses de tout autre destinataire

Ministry Use Only
Reserve au ministere
Application Checked by
Demande vérifiée par

☐ **Application Recommended for Approval**
Autorisation de la demande recommandée

Supervisor, Environmental Approvals Section — Date
Superviseur, Section des approbations environnementales — *Date*

Description of Watermain Location
Description de l emplacement des conduites principales

Plan Number *N° de plan*	Type and Class of Watermain *Type et categorie de conduites principales*	Street or Easement on which Watermain is to be constructed *Rue ou servitude (dans laquelle la conduite principale doit être construite)*	From (location with respect to nearest intersecting street) *De (intersection la plus proche)*	To (location with respect to nearest intersecting street). *A (intersection la plus proche)*